

ENG. PROJECT NO. KS:A682:14-1

PORTION OF: SEC 12, T 18N, R 17E WM

REFERENCE NUMBER:

APPLICANT:

WASHINGTON DEPT. of FISH & WILDLIFE 600 CAPITOL WAY N.

OLYMPIA, WA 98501-1091

ADJACENT PROPERTY OWNER:

1.

LAT/LONG:

NAVD88 DATUM:

PROJECT LOCATION (ADDRESS):

of **9** SHEET 1

DATE: 12-8-2014

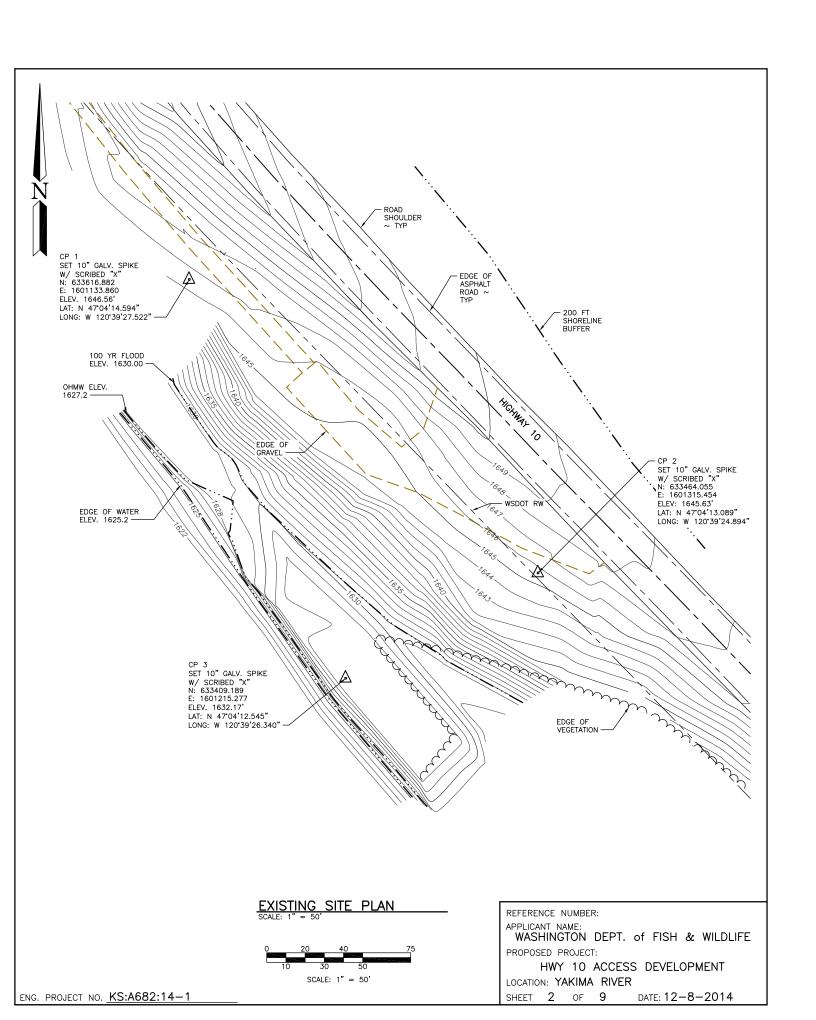
HWY 10 AT MILE POST 101.1

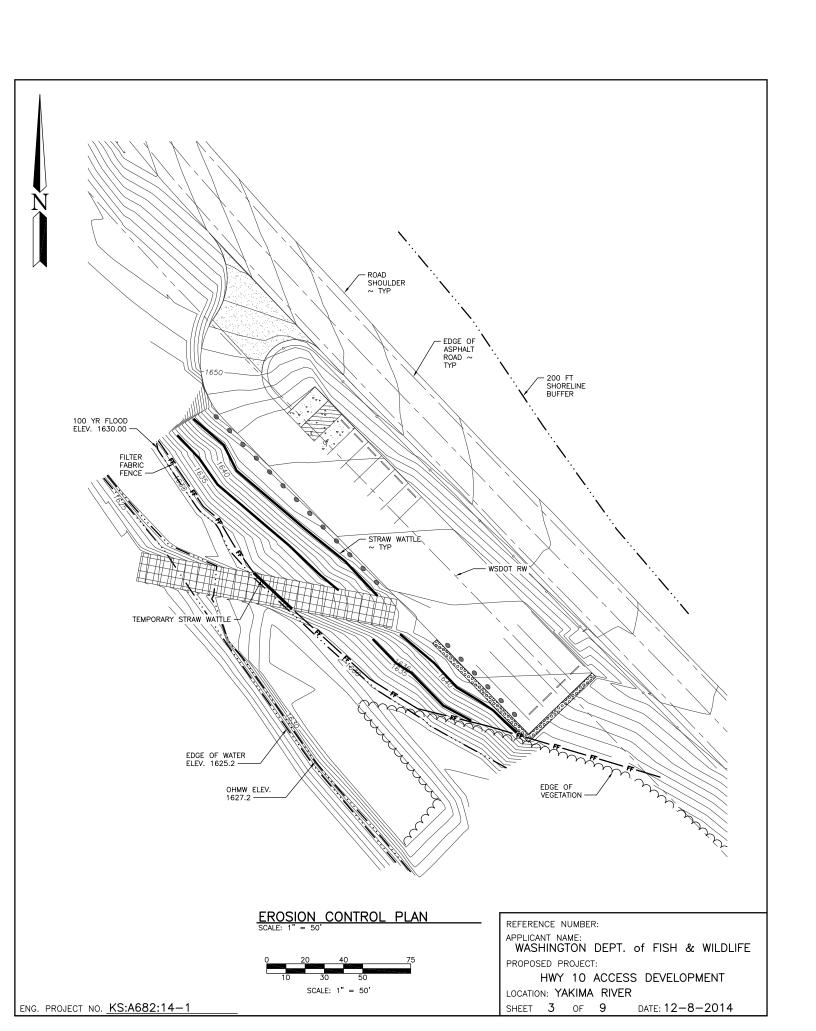
PROPOSED PROJECT:

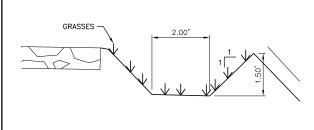
HWY 10 ACCESS DEVELOPMENT

IN: YAKIMA RIVER NEAR/AT: YAKIMA RIVER

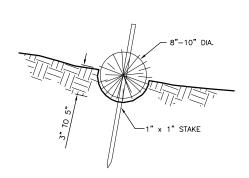
COUNTY: KITTITAS STATE: WA







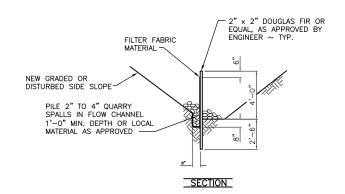
**BIOSWALE** 

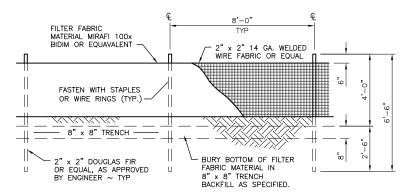


# STRAW WATTLE DETAIL NOT TO SCALE

### **CONSTRUCTION SPECIFICATIONS:**

- 1. PREPARE THE SLOPE BEFORE THE WATTLING PROCEDURE IS STARTED.
- SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.
- DIG SMALL TRENCHES ACROSS THE SLOPE ON CONTOUR, TO PLACE ROLLS IN. THE TRENCH SHOULD BE DEEP ENOUGH TO ACCOMMODATE HALF THE THICKNESS OF THE ROLL. WHEN THE SOIL IS LOOSE AND UNCOMPACTED, THE TRENCH SHOULD BE DEEP ENOUGH TO BURY THE ROLL 2/3 OF ITS THICKNESS BECAUSE THE GROUND WILL SETTLE.
- IT IS CRITICAL THAT ROLLS ARE INSTALLED PERPENDICULAR TO WATER MOVEMENT, PARALLEL TO THE SLOPE CONTOUR.
- START BUILDING TRENCHES AND INSTALL ROLLS FROM THE BOTTOM OF THE SLOPE AND WORK UP.
- CONSTRUCT TRENCHES AT CONTOUR INTERVALS OF 3-12 FEET APART DEPENDING ON STEEPNESS OF SLOPE. THE STEEPER THE SLOPE, THE CLOSER TOGETHER THE TRENCHES. 1:1=10' 2:1=20' 3:1=30' 4:1=40'
- LAY THE ROLL ALONG THE TRENCHES FITTING IT SNUGLY AGAINST THE SOIL. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE STRAW WATTLE.
- USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE WATTLE AND INTO THE SOIL FOR THE WILLOW OR WOODEN STAKES.
- DRIVE THE STAKE THROUGH PREPARED HOLE INTO SOIL. LEAVE ONLY 1 OR 2 INCHES OF STAKE EXPOSED ABOVE ROLL.
- 10. IF USING WILLOW STAKES REFER TO LIVE STAKING BEST MANAGEMENT
- 11. INSTALL STAKES AT LEAST EVERY 4 FEET APART THROUGH THE WATTLE. ADDITIONAL STAKES MAY BE DRIVEN ON THE DOWNSLOPE SIDE OF THE TRENCHES ON HIGHLY EROSIVE OR VERY STEEP SLOPES.
- 12. INSPECT THE STRAW ROLLS AND THE SLOPES AFTER SIGNIFICANT STORMS. MAKE SURE THE ROLLS ARE IN CONTACT WITH THE SOIL.
- 13. REPAIR ANY RILLS OR GULLYS PROMPTLY.
- 14. RESEED OR REPLANT VEGETATION IF NECESSARY UNTIL THE SLOPE IS STABILIZED.





# FILTER FABRIC FENCE

## FILTER FABRIC NOTES:

- FILTER FABRIC SHALL BE PURCHASED CONTINUOUS ROLL CUT TO LENGTH OF BARRIER AS NEEDED. IF JOINTS ARE NECESSARY FABRIC SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POSTS WITH A MINIMUM OF (6) INCH OVERLAP. BOTH ENDS SHALL BE SECURED AS REQUIRED.
- FILTER FABRIC SHALL BE INSTALLED TO FOLLOW CONTOURS. FENCE POSTS SHALL BE SPACED A MAXIMUM OF EIGHT (8) FEET APART UNLESS OTHERWISE SHOWN HEREIN. ALL POSTS SHALL BE DRIVEN INTO THE GROUND A MINIMUM OF 30 INCHES.
- A TRENCH SHALL BE EXCAVATED, ROUGHLY EIGHT (8) INCHES WIDE BY EIGHT (8) INCHES DEEP UP SLOPE AND ADJACENT TO THE POST TO ALLOW THE FILTER FABRIC TO BE BURIED.
- WHEN STANDARD STRENGTH FILTER FABRIC IS UTILIZED, A WIRE SINGLE SPACE MESH SUPPORT FENCE SHALL BE FASTENED TO THE UPSLOPE (OR UPSTREAM) SIDE OF THE POSTS USING ONE (1) INCH MINIMUM LENGTH WIRE STAPLES, TIE WIRE OR APPROVED HOG RINGS. ALL WIRE SUPPORT SHALL EXTEND INTO THE TRENCH A MINIMUM OF FOUR (4) INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE ORIGINAL GRADE.
- ALL FILTER FABRIC SHALL BE STAPLED OR WIRED TO SUPPORT FENCING AND A MINIMUM OF 20 INCHES OF FABRIC SHALL BE EXTENDED INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED OR FASTENED TO EXISTING TREES OF STRUCTURES UNLESS OTHERWISE APPROVED BY
- IF HIGH STRENGTH FILTER FABRIC AND CLOSER SPACING ARE USED, THE WIRE SUPPORT FENCING MAY BE ELIMINATED. HIGH STRENGTH FABRIC SHALL BE STAPLED OR WIRED DIRECTLY TO POSTS AS REQUIRED BY THE ENGINEER.
- CUTOFF TRENCH SHALL BE BACKFILLED WITH 3/4 INCH MINIMUM DIAMETER WASHED GRAVEL OR OTHER SIMILAR SOURCE AS APPROVED BY THE ENGINEER.
- FILTER FENCING SHALL BE INSTALLED WHERE SHOWN ON THE PLAN, OR AS MARKED IN THE FIELD BY THE ENGINEER, PRIOR TO COMMENCEMENT OF WORK. ALL FENCING SHALL BE INSPECTED DAILY DURING CONSTRUCTION AND AFTER EACH SIGNIFICANT RAINFLE EVENT UNTIL SIE HAS BEEN PERMANENTLY STABILIZED. ANY REQUIRED REPAIRS SHALL BE MADE
- REMOVAL OF TRAPPED SEDIMENT SHALL BE PERFORMED WHEN AMOUNTS REACH APPROXIMATELY 1/3 HEIGHT OF THE FENCE.
- FILTER FENCING SHALL REMAIN IN-PLACE UNTIL SITE HAS BEEN REVEGETATED TO ORIGINAL CONDITION OR DIRECTED BY THE ENGINEER.

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WASHINGTON DEPT. of FISH & WILDLIFE PROPOSED PROJECT:

HWY 10 ACCESS DEVELOPMENT LOCATION: YAKIMA RIVER

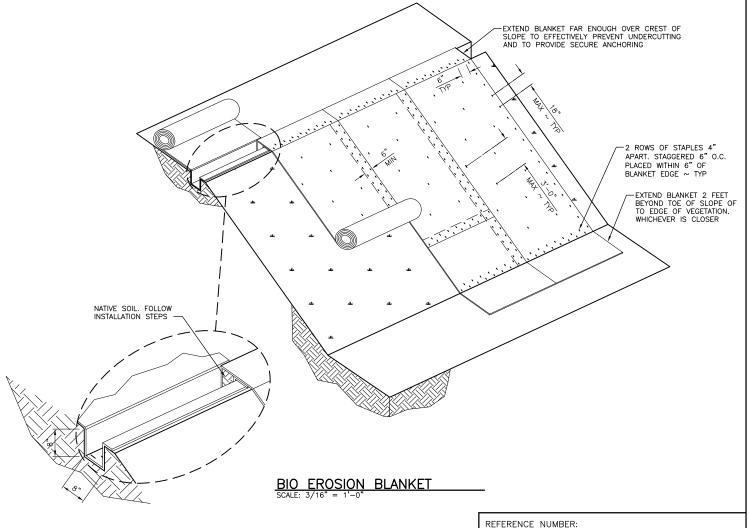
OF DATE: 12-8-2014 SHEET

### **INSTALLATION NOTES:**

- 1. PREPARE SMOOTH SLOPES
- 2. AMEND SOIL AND SEED, AS SPECIFIED
- 3. DIG ANCHOR TRENCH, SET ASIDE NATIVE SOIL REMOVED FROM TRENCH
- 4. SECURE BLANKET IN ANCHOR TRENCH STAKING OR STAPLING BLANKET AS SHOWN
- 5. REPLACE NATIVE SOIL PREVIOUSLY REMOVED FROM TRENCH
- 6. ROLL BLANKET DOWN THE SLOPE IN A CONTROLLED MANNER, TAKING CARE TO REMOVE EXCESS SLACK AND TAKING CARE NOT TO STRETCH BLANKET
- STAKE OR STAPLE BLANKET AS SHOW SO THERE ARE NO GAPS BETWEEN THE BLANKET AND THE SOIL. STAPLE WHILE UNROLLING BLANKET TO MINIMIZE WALKING ON BLANKET

#### NOTES:

- MORE THAN THE MINIMUM OF ONE FASTENER PER SQUARE YARD MAY BE REQUIRED DUE TO THE CONDITIONS SUCH A BLANKET COMPOSITION, SOIL TYPE, SURFACE UNIFORMITY, AND SLOP STEEPNESS
- SEE WSDOT STANDARD SPECIFICATION 8-01.3(3) AND 9-14.5(2)
- USE THE MANUFACTURER'S REQUIREMENTS. WHEN MANUFACTURER'S REQUIREMENTS ARE NOT PROVIDED, USE INSTALLATION REQUIREMENTS SHOWN ON STANDARD PLANS.
- ADDITIONAL STAPLES MAY BE REQUIRED ON SLOPES GREATER THAN 3H:1V



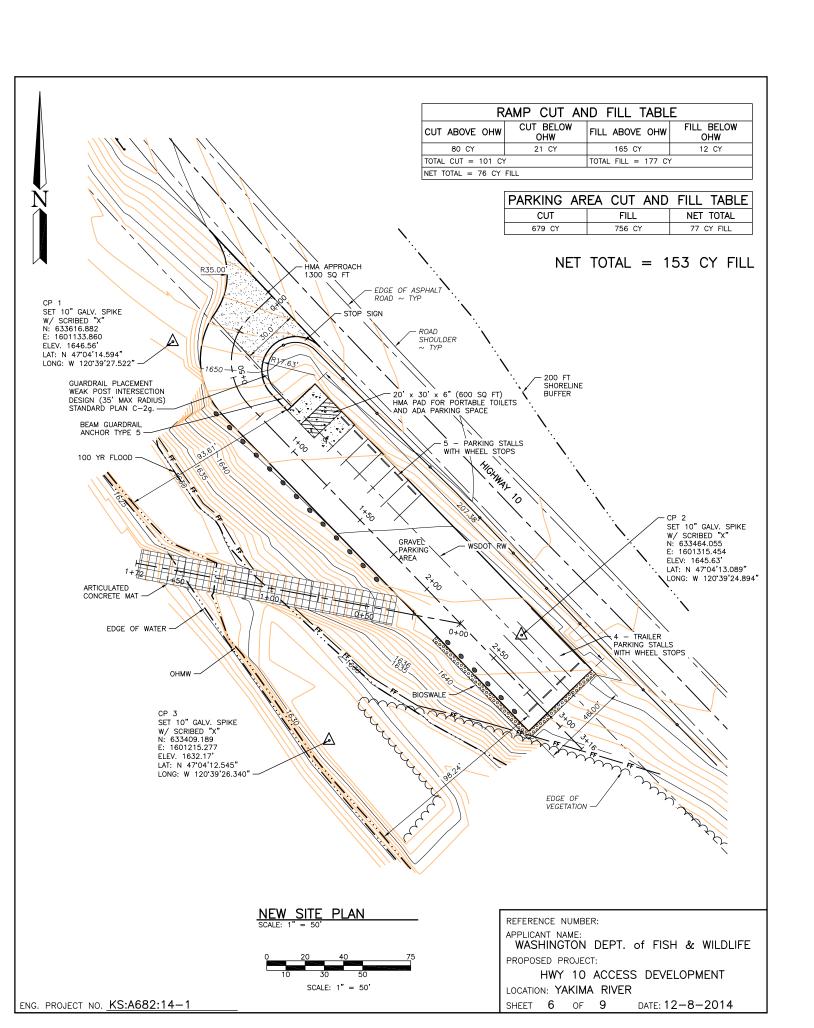
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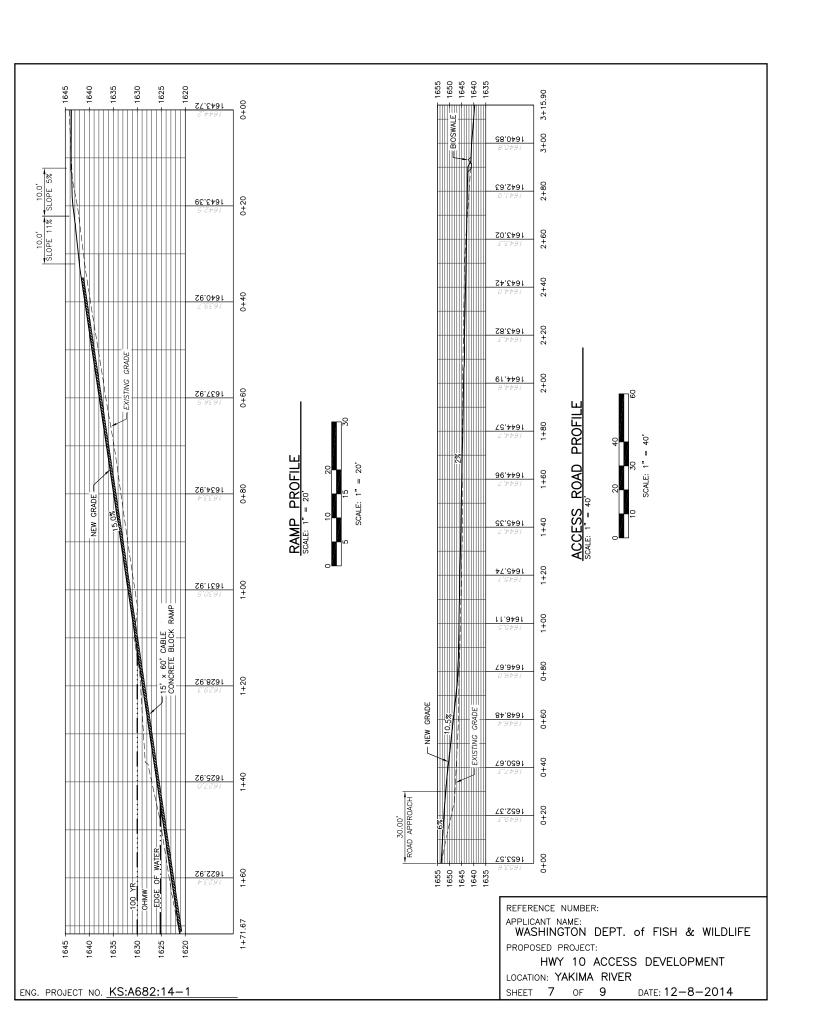
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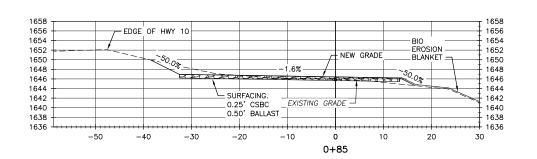
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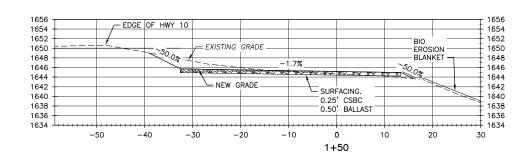
SHEET 5 OF 9 DATE: 12-8-2014

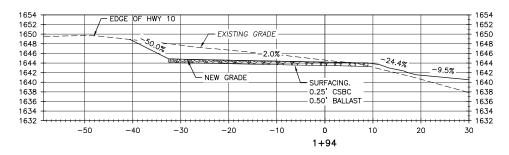


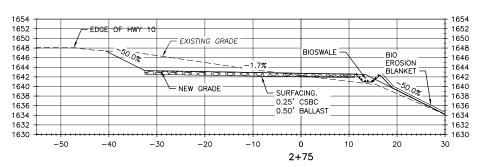




NOTE: OHW = 1625.2 ± 100 YR = 1630 ±







ACCESS ROAD SECTIONS
SCALE: 1" = 20'



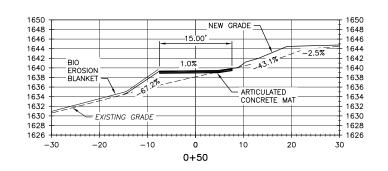
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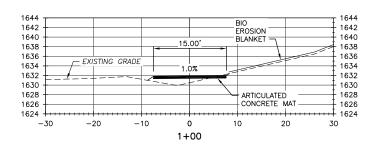
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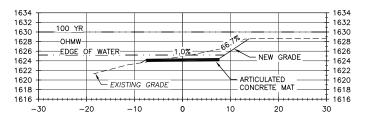
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HWY 10 ACCESS DEVELOPMENT LOCATION: YAKIMA RIVER

SHEET 8 OF 9 DATE: 12-8-2014

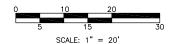








15.00



- ADD 1' CLEAN GRAVEL SHOULDER AT EDGE OF CONCRETE MAT. FINISHED SURFACE SHALL MATCH EXISTING GRADE ~ TYP  6" DEEP ARTICULATED CONCRETE MAT. 20% OPEN SPACE. FILL ALL VOIDS WITH 5/8" CLEAN GRAVEL.

GEOTEXTILE 15' WIDE NILEX 801/ LAYFIELD LP4 NON-WOVEN ~ TYP UNDISTURBED GROUND OR 6" COMPACTED CRUSHED BASE COURSE

PLACE 4" OF 1 1/4"
CLEAN COMPACTED
CRUSHED ROCK

# ARTICULATED MAT SECTION NOT TO SCALE

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SHEET 9 OF 9 DATE: 12-8-2014